



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

National Overview – Sexually Transmitted Disease Surveillance, 2019

National Overview of STDs, 2019

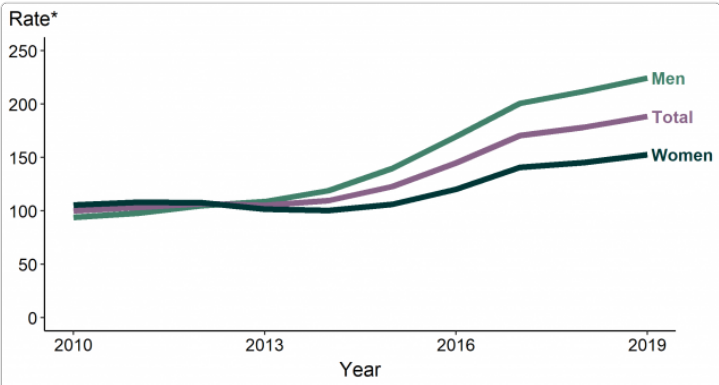
As noted in the 2021 National Academies of Sciences Engineering and Medicine report, [Sexually Transmitted Infections: Adopting a Sexual Health Paradigm](#), surveillance is key to understanding the magnitude of sexually transmitted infections in the United States and in subpopulations that are most affected.¹ The *2019 STD Surveillance Report* provides trends in STDs to describe current epidemiology of nationally notifiable STDs and inform prevention and control strategies. This overview summarizes national surveillance data for 2019 on the three notifiable diseases for which there are federally funded control programs: chlamydia, gonorrhea, and syphilis.

CHLAMYDIA

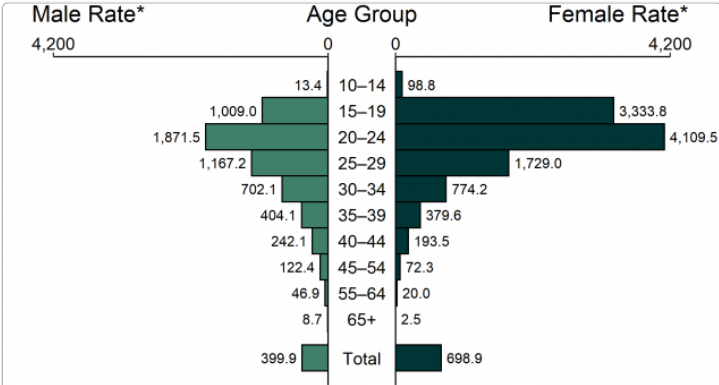
In 2019, a total of 1,808,703 cases of *Chlamydia trachomatis* infection were reported to the CDC, making it the most common notifiable condition in the United States for that year. This case count corresponds to a rate of 552.8 cases per 100,000 population, an increase of 2.8% compared with the rate in 2018. During 2018–2019, rates of reported chlamydia increased among both males and females, in all regions of the United States, and among all racial/Hispanic ethnicity groups.

Although rates of reported cases among men are generally lower than rates among women, reflecting the larger number of women screened for this infection, rates among men increased 32.1% during 2015–2019. Increases in rates among men may reflect an increased number of men, including gay, bisexual, and other men who have sex with men (MSM), being tested and diagnosed with a chlamydial infection due to increased availability of urine testing and extragenital screening, increased transmission among men, or both.

Rates of reported chlamydia are highest among adolescents and young adults. In 2019, almost two-thirds (61.0%) of all reported chlamydia cases were among persons aged 15–24 years. Among females aged 15–24 years, the population targeted for chlamydia screening, the overall rate of reported cases of chlamydia was 3,728.1 cases per 100,000 females, an increase of 10.0% from 2015.



Chlamydia — Rates of Reported Cases by Sex, United States, 2000–2019

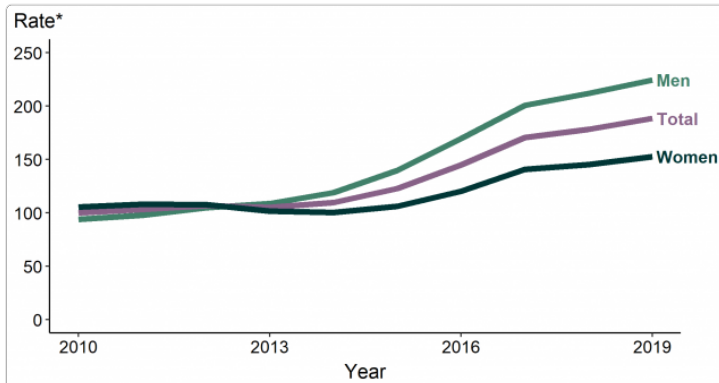


Chlamydia — Rates of Reported Cases by Age Group and Sex, United States, 2019

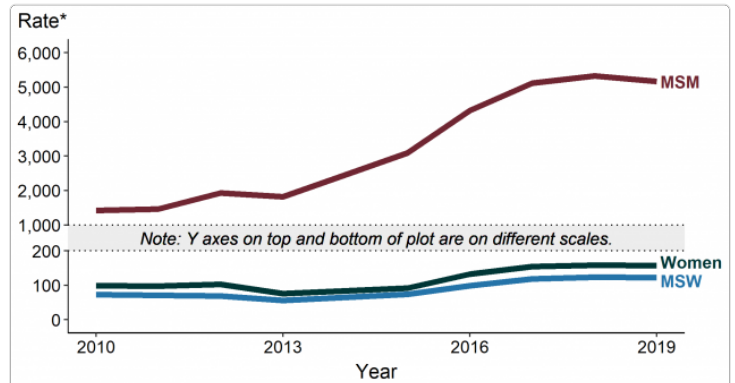
GONORRHEA

In 2019, a total of 616,392 cases of gonorrhea were reported to the CDC, making it the second most common notifiable condition in the United States for that year. Rates of reported gonorrhea have increased 92.0% since the historic low in 2009. During 2018–2019, the overall rate of reported gonorrhea increased 5.7%. Rates increased among both males and females, in all regions of the United States, and among all racial/Hispanic ethnicity groups.

Since 2013, the rate of reported gonorrhea has been higher among men compared to women. Among men, the rate of reported gonorrhea increased 5.9% during 2018–2019 and 60.6% during 2015–2019. Rates among women increased 5.1% during 2018–2019 and 43.6% during 2015–2019. The higher case rate among men and the magnitude of recent increases suggests either increased transmission, increased case ascertainment (e.g., through increased extra-genital screening among MSM), or both. The concurrent increase in cases reported among women suggests parallel increases in heterosexual transmission, increased screening among women, or both. Enhanced data on a representative sample of gonorrhea cases from selected jurisdictions participating in a sentinel surveillance system, the STD Surveillance Network (SSuN), suggest that estimated rates of reported gonorrhea among MSM are 42 times the estimated rate among men who have sex with women only (MSW); however, increases in rates of reported gonorrhea among MSM appear to have slowed in the past several years.



Gonorrhea — Rates of Reported Cases by Sex, United States, 2010–2019

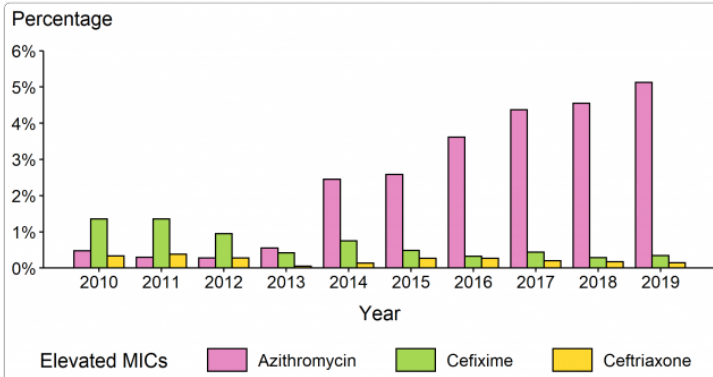


Gonorrhea — Estimated Rates of Reported Gonorrhea Cases by MSM, MSW, and Women, STD Surveillance Network (SSuN), 2010–2019

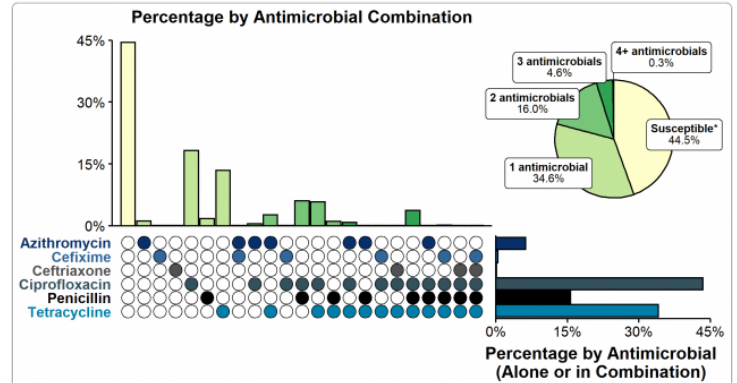
ANTIBIOTIC RESISTANT GONORRHEA

Gonorrhea can quickly develop resistance to antibiotics used to treat infection, and in 2019, more than half of all infections were estimated to be resistant to at least one antibiotic. Since 2010, almost all circulating strains in the United States, based on gonococcal isolates collected through sentinel surveillance in the Gonococcal Isolate Surveillance Project (GISP), remain susceptible to ceftriaxone, the primary treatment for gonorrhea; only 0.1% of isolates displayed elevated ceftriaxone minimum inhibitory concentrations (MICs) in 2019. In 2019, 5.1% of isolates had elevated azithromycin MICs; the proportion was higher among MSM compared to MSW (8.8% vs 3.3%). In 2019, the prevalence of ciprofloxacin resistance also continued to increase to 35.4%, the highest recorded in GISP. Continued monitoring of susceptibility patterns to antibiotics is critical to inform gonorrhea treatment guidelines.

In selected jurisdictions participating in a sentinel surveillance system, the STD Surveillance Network, most reported gonorrhea cases received the recommended treatment in 2019. In December of 2020, CDC released updated gonorrhea treatment guidelines, recommending a single 500 mg intramuscular dose of ceftriaxone for uncomplicated gonorrhea.² Continued surveillance of treatment practices is a critical public health priority to help assure that patients receive the highest quality of care, and to address the emerging threat of antimicrobial-resistant gonorrhea.



Neisseria gonorrhoeae — Percentage of Isolates with Elevated Minimum Inhibitory Concentrations (MICs) to Azithromycin, Cefixime, and Ceftriaxone, Gonococcal Isolate Surveillance Project (GISP), 2010–2019

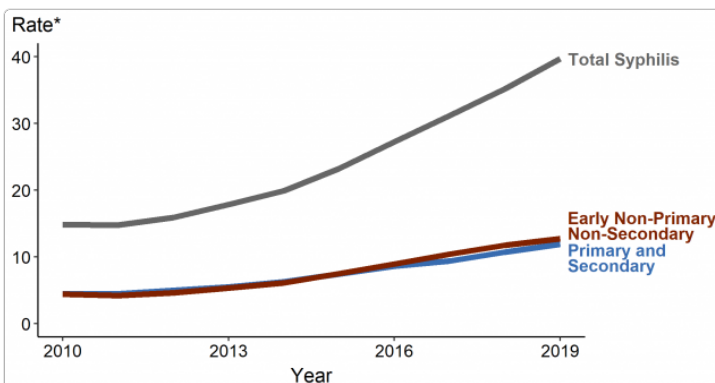


Resistance or Elevated Minimum Inhibitory Concentration (MIC) Patterns of *Neisseria gonorrhoeae* Isolates to Antimicrobials, Gonococcal Isolate Surveillance Project (GISP), 2019

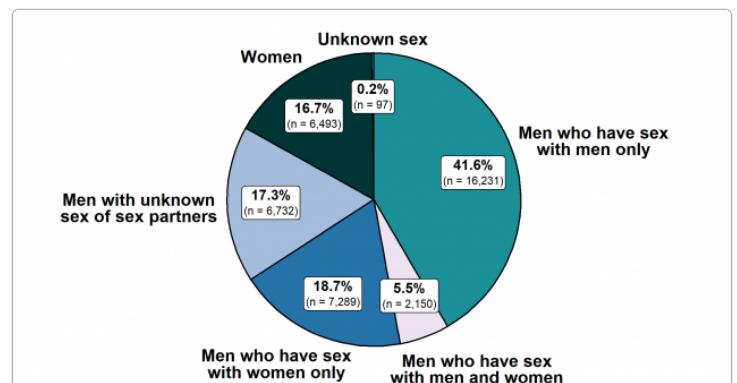
SYPHILIS

In 2019, 129,813 cases of all stages of syphilis, were reported, including 38,992 cases of primary and secondary (P&S) syphilis, the most infectious stages of the disease. Since reaching a historic low in 2000 and 2001, the rate of P&S syphilis has increased almost every year, increasing 11.2% during 2018–2019. Rates increased among both males and females, in all regions of the United States, and among all racial/Hispanic ethnicity groups.

Since 2000, rates of P&S syphilis have increased among men, likely attributable to increases in cases among MSM; however, increases among MSM may be slowing. In jurisdictions with consistent collection of sex of sex partners, case counts among MSM were stable during 2018–2019. Still, MSM are disproportionately impacted, accounting for a majority (56.7%) of all male P&S syphilis cases in 2019. Although rates of P&S syphilis are lower among women, rates have increased substantially in recent years, increasing 30.0% during 2018–2019 and 178.6% during 2015–2019, suggesting the heterosexual syphilis epidemic continues to rapidly increase.



Syphilis — Rates of Reported Cases by Stage of Infection, United States, 2010–2019

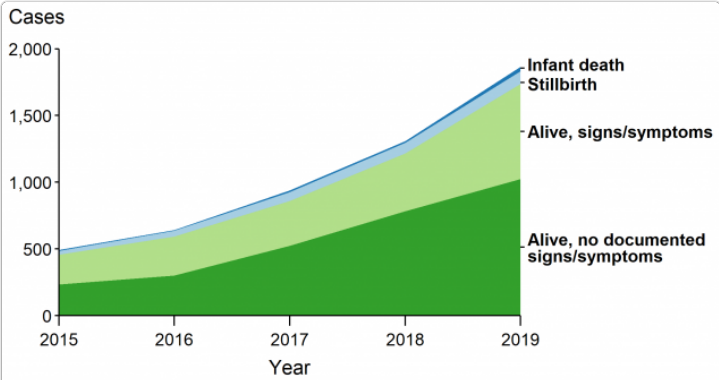


Primary and Secondary Syphilis — Distribution of Cases by Sex and Sex of Sex Partners, United States, 2019

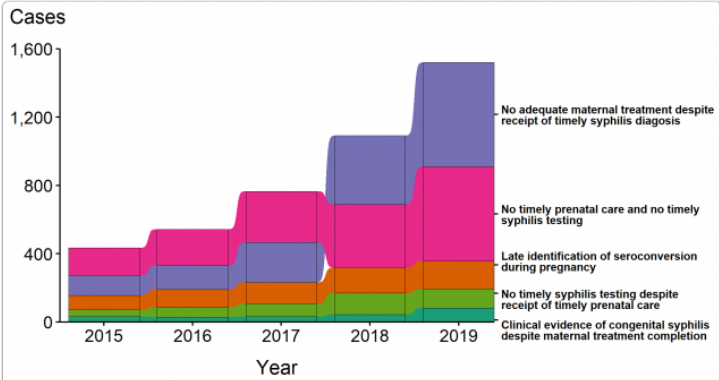
CONGENITAL SYPHILIS

The 2013 rate of congenital syphilis (9.2 cases per 100,000 live births) marked the first increase in congenital syphilis since 2008. Since 2013, the rate of congenital syphilis has increased each year. In 2019, 1,870 cases of congenital syphilis were reported. Although the majority of cases were reported from a few states, 44 jurisdictions (43 states and the District of Columbia) reported at least one case of congenital syphilis in 2019. The national rate of 48.5 cases per 100,000 live births in 2019 represents a 41.4% increase relative to 2018 and 291.1% increase relative to 2015.

During 2018–2019 the number of syphilitic stillbirths increased (from 79 to 94 stillbirths), as did the number of congenital syphilis related infant deaths (from 15 to 34 deaths). In 2019, the most common missed congenital syphilis prevention opportunity was a lack of adequate maternal syphilis treatment despite receipt of a timely syphilis diagnosis (40.2%). The second most common missed congenital syphilis prevention opportunity in 2019 was a lack of timely prenatal care and subsequent lack of timely syphilis testing (36.3%).



Congenital Syphilis — Reported Cases by Vital Status and Clinical Signs and Symptoms* of Infection, United States, 2015–2019





Congenital Syphilis — Missed Prevention Opportunities Among Mothers Delivering Infants with Congenital Syphilis, United States, 2015–2019

DISPARITIES IN STDs

As in past years, there were significant disparities in rates of reported STDs. In 2019, over half (55.4%) of reported cases of STDs were among adolescents and young adults aged 15-24 years. Disparities continue to persist in rates of reported STDs among some racial minority or Hispanic groups when compared with rates among non-Hispanic Whites. In 2019, 30.6% of all cases of chlamydia, gonorrhea, and P&S syphilis were among non-Hispanic Blacks, even though they made up only approximately 12.5% of the US population. MSM are disproportionately impacted by STDs, including P&S syphilis and gonorrhea.

It is important to note that these disparities are unlikely explained by differences in sexual behavior and rather reflect differential access to quality sexual health care, as well as differences in sexual network characteristics. For example, in communities with higher prevalence of STDs, with each sexual encounter, people face a greater chance of encountering an infected partner than those in lower prevalence settings do, regardless of similar sexual behavior patterns. Acknowledging inequities in STD rates is a critical first step toward empowering affected groups and the public health community to collaborate in addressing systemic inequities in the burden of disease — with the ultimate goal of minimizing the health impacts of STDs on individuals and populations.

REFERENCES

1. National Academies of Sciences, Engineering, and Medicine 2021. Sexually Transmitted Infections: Adopting a Sexual Health Paradigm. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25955> 
2. St. Cyr S, Barbee L, Workowski KA, et al. Update to CDC's Treatment Guidelines for Gonococcal Infection, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1911–1916. DOI: <https://dx.doi.org/10.15585/mmwr.mm6950a6> 

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